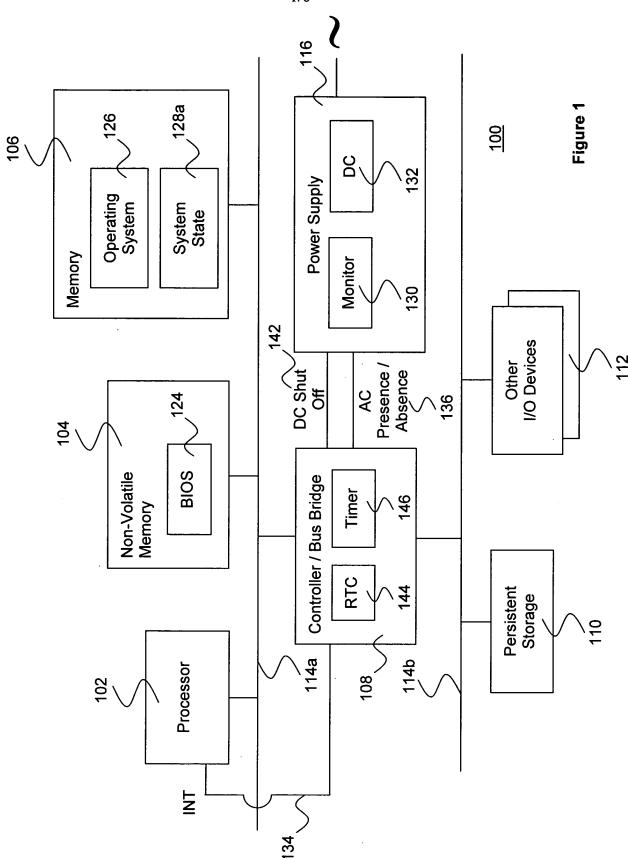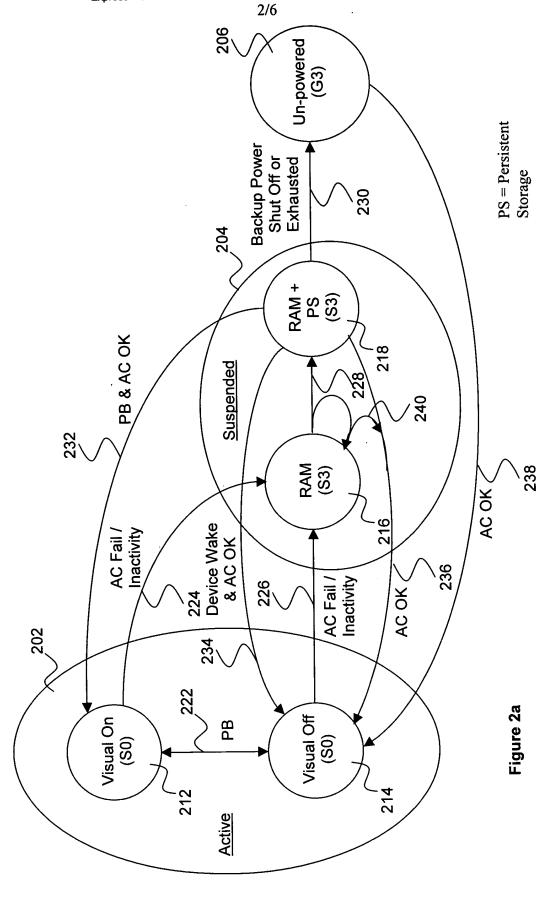Attorney's Docket No.: 110349-133957 Date of D posit: August 19, 2003
Inventor(s): Robert A. Dunstan Application No.: Not yet assigned
For: Automatic Shut Off of Backup Power Source in the Extended Absence of AC Power
Express Mail No.: EL782197014US

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Figure 1

Attorney's Docket No.: 110349-133957
Inventor(s): Rob rt A. Dunstan
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Date of Deposit: August 19, 2003
Application No.: Not yet assigned

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PS = Persistent Storage

Un-powered (G3)   206

Backup Power Shut Off or Exhausted   204   230

RAM + PS (S3)   218

PB & AC OK   232

Suspended   228   240

RAM (S3)   216

238   AC OK

AC Fail / Inactivity   224

Device Wake & AC OK   226

AC Fail / Inactivity

AC OK   236

202   234

PB   222

Visual On (S0)   212

Visual Off (S0)   214

Active

Figure 2a

Attorn y's Dock t No.: 110349-133957   Dat of Deposit: August 19, 2003
Inventor(s): Robert A. Dunstan   Application No.: Not yet assigned
For: Automatic Shut Off of Backup Power Source in the Extended Absence of AC Power
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108

Logic

148

Timer

146

AC Presence /
Absence

DC Shut Off

116

DC

Switch

142

244

132

246

AC

Power
Rails

Mon

AC Presence / Absence

130

136

Figure 2b

Storage Medium
250

Programming
Instructions -
BIOS

252

Figure 2c

Attorney's Docket No.: 110349-133957   Date of Deposit: August 19, 2003
Inv ntor(s): Robert A. Dunstan   Application No.: Not yet assigned
For: Automatic Shut Off of Backup Power Source in the Extended Absence of AC Power
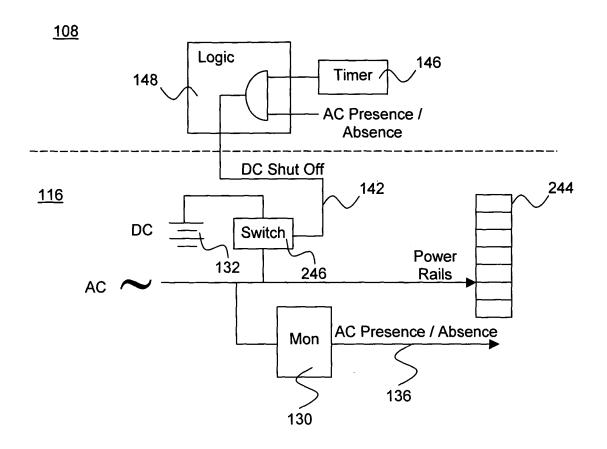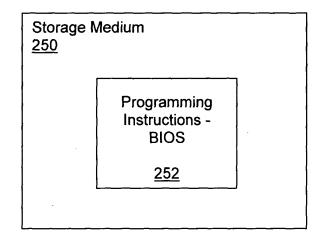Express Mail No.: EL782197014US
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```
                    ┌──────────────────────────────┐
                    │ Power Supply Monitors For AC │
   AC   ──────────▶ │ Presence / Absence & Output  │
Presence            │ Signal to Denote AC Presence │
                    │ / Absence                    │
                    │                          302 │
                    └──────────────┬───────────────┘
                                   │ AC Absence
                                   ▼
                    ┌──────────────────────────────┐
                    │       MCH / ICH / BB          │
                    │      Asserts Interrupt        │
                    │                          304  │
                    └──────────────┬───────────────┘
                                   │
                                   ▼
                    ┌──────────────────────────────┐
                    │     OS Initiates Suspend      │
                    │           Process             │
                    │                          306  │
                    └──────────────┬───────────────┘
                                   │
                                   ▼
                    ┌──────────────────────────────┐
                    │ Bios Intervenes & Set Timer   │
                    │ [Or RTC To Wake System]       │
                    │                          308  │
                    └──────────────┬───────────────┘
                                   │
                                   ▼
                    ┌──────────────────────────────┐
                    │       MCH / ICH / BB          │
                    │ Shuts Off Normal Power,       │
                    │ Leaving Only Stand By Power   │
                    │                          310  │
                    └──────────────┬───────────────┘
                                   │
                                   ▼
                    ┌──────────────────────────────┐
                    │ Timer Expires [Or RTC wakes   │
                    │ system and BIOS] and turns    │
                    │ off Battery                   │
                    └──────────────────────────────┘
```

Figure 3

Attorney's Docket No.: 110349-133957   Date of Deposit: August 19, 2003
Inventor(s): Robert A. Dunstan   Application No.: Not yet assigned
For: Automatic Shut Off of Backup Power Source in the Extended Absence of AC Power
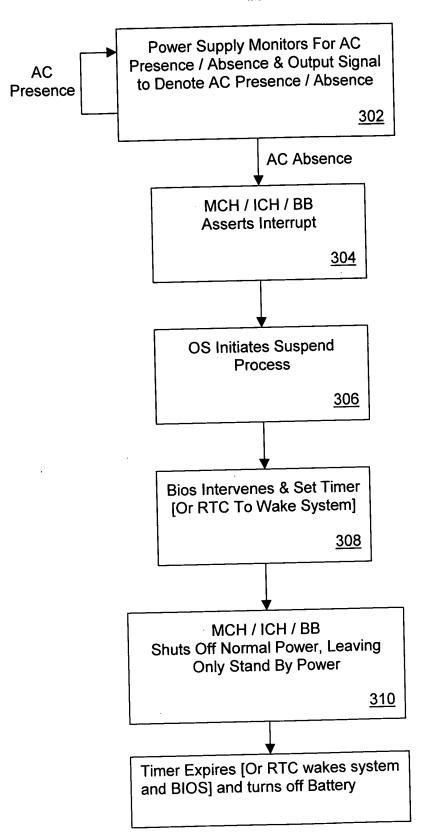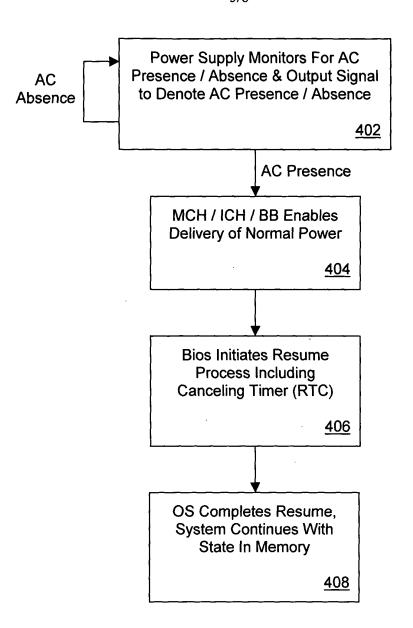Express Mail No.: EL782197014US

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AC
Absence

Power Supply Monitors For AC
Presence / Absence & Output Signal
to Denote AC Presence / Absence

402

AC Presence

MCH / ICH / BB Enables
Delivery of Normal Power

404

Bios Initiates Resume
Process Including
Canceling Timer (RTC)

406

OS Completes Resume,
System Continues With
State In Memory

408

Figure 4

Attorney's Docket No.: 110349-133957   Date of Deposit: August 19, 2003
Inventor(s): Robert A. Dunstan   Application No.: Not yet assigned
For: Automatic Shut Off of Backup Power Source in the Extended Absence of AC Power
Express Mail No.: EL782197014US
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Figure 5a

RTC Initiates
Wake

MCH / ICH / BB
Re-enables Delivery Of
Normal Power

502

BIOS Shut Off DC
Power Source

504

System Enters
Un-powered State

506

Figure 5b

Timer
Expires

MCH / ICH / BB Shuts
Off DC Power Source

512

System Enters
Un-powered State

514